REMARKS

Claims 1-30 were pending in the present application. Claims 9, 17-20, 22, 23, 26, 27, 29, and 30 have been cancelled herein without prejudice to their presentation in another application as being drawn to a non-elected invention. Claim 13 has been amended to remove the subject matter which has been incorporated into claim 1. Claim 14 has been cancelled, the subject matter of which has been incorporated into claim 1. Claims 24 and 25 have been amended to remove a typographical error. No new matter has been added. Upon entry of the present amendment, claims 1-8, 10-13, 15, 16, 21, 24, 25, and 28 will be pending.

Applicants recognize that page 15 of the Office Action acknowledges that "Claim 25, the elected subject matter of which is drawn to an antisense compound that has the sequence of SEQ ID NO:36, is free of the prior art searched."

I. The Claimed Invention Is Novel

A. U.S. Patent No. 6,194,556

Claims 1-13, 15, 16, 21, and 28 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,194,556 (hereinafter, the "Acton I reference"). Applicants traverse the rejection and respectfully request reconsideration of the same in view of the amendment to claim 1.

Applicants have amended claim 1 to recite that the compound "comprises at least one 2'-O-methoxyethyl sugar moiety" support for which can be found in cancelled claim 14. The Acton I reference does not teach an antisense compound comprising at least one 2'-O-methoxyethyl sugar moiety. Thus, the Acton I reference does not anticipate Applicants' claimed invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §102(b) be withdrawn.

B. U.S. Patent No. 6,610,497

Claims 1-13, 15, 16, 21, and 28 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,610,497 (hereinafter, the "Acton II reference"). Applicants

traverse the rejection and respectfully request reconsideration of the same in view of the amendment to claim 1.

Applicants have amended claim 1 to recite that the compound "comprises at least one 2'-O-methoxyethyl sugar moiety" support for which can be found in cancelled claim 14. The Acton II reference does not teach an antisense compound comprising at least one 2'-O-methoxyethyl sugar moiety. Thus, the Acton II reference does not anticipate Applicants' claimed invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §102(e) be withdrawn.

C. U.S. Patent No. 6,080,546

Claims 1-8, 13-16, 21, 24 and 28 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,080,546 (hereinafter, the "Monia reference"). Applicants respectfully request reconsideration because the Monia reference does not teach every feature recited in the rejected claims.

The Office Action alleges that the Monia reference discloses "antisense compounds that include SEQ ID NO: 34 that is an antisense oligonucleotide that is 20 nucleobases in length that is 75% complementary to a nucleic acid molecule encoding ACE2 ..." Applicants have amended claim 1 to recite that the compound is at least 85% complementary to the nucleic acid molecule encoding ACE2, support for which can be found in original claim 10. The Monia reference does not teach an antisense compound that is at least 85% complementary to the nucleic acid molecule encoding ACE2. Thus, the Monia reference does not anticipate Applicants' claimed invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §102(e) be withdrawn.

II. The Claimed Invention Is Not Obvious

Claims 1-8, 13-16, 21, 24 and 28 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over the Monia reference. The claims have been amended as described above. The Monia reference does not teach or suggest an antisense compound 8 to 80 nucleobases in length targeted to a nucleic acid molecule encoding angiotensin converting enzyme (ACE) 2, wherein

the compound is at least 85% complementary to the nucleic acid molecule encoding ACE2 (SEQ ID NO:4). Indeed, the reference constitutes a nonanalagous reference. Section 103 requires that asserted prior art must pertain to the subject matter sought to be patented - that is, whether the art is analogous or not - for it to be the proper basis for an obviousness rejection. Two criteria are used to determine whether the art is analogous: (1) "whether the art is from the same field of endeavor"; and (2) if not from the same field, "whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *In re Clay*, 23 U.S.P.Q.2d 1058, 1060 (Fed. Cir. 1992). The Monia reference is neither "from the same field of endeavor" nor "reasonably pertinent to the particular problem with which the inventor is involved." Indeed, the Monia reference reports antisense oligonucleotides directed to mtiogen-activated protein kinase kinase kinase 5 (MEKK5), which is not "the same field of endeavor" as Applicants' claimed invention. Further, antisense oligonucleotides targeted to MEKK5 are not "pertinent to the particular problem with which the inventor is involved" -- ACE2 and SARS virus. Thus, one skilled in the art would not even consult the Monia reference nor would be motivated to modify any compound reported therein to produce any claimed compound. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §103(a) be withdrawn.

III. The Claimed Invention Is Clear And Definite

Claim 1 is rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Office Action alleges that "the metes and bounds of a compound that inhibits the expression of ACE2 mRNA by at least 10% cannot be determined....because, as recognized by the state of the art, the conditions under which a compound can be used to inhibit gene expression are highly variable and can have significant influence on the level of expression that is inhibited." Although Applicants disagree with the allegations in the Office Action, claim 1 has been amended to no longer recite the phrase referred to in the rejection. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §112, first paragraph be withdrawn.

IV. The Claimed Invention Is Supported By Ample Written Description

Claims 1-9, 13-16, 21, 24, 25, and 28 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. The Office Action asserts that the claim encompasses any antisense compound that is complementary to any nucleic acid sequence (including genomic, pre-mRNA, mature mRNA, transcript variants, and allelic versions) and that one skilled in the art cannot envision the particular structure of any such antisense compound. Although Applicants disagree with the reasoning stated in the Office Action, claim 1 has been amended to recite that the antisense compounds are at least 85% complementary to a nucleic acid molecule encoding ACE2 (SEQ ID NO:4). One skilled in the art could, having examined SEQ ID NO:4, immediately envision every antisense compound that is at least 85% complementary thereto. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §112, first paragraph be withdrawn.

V. Conclusion

All pending claims are in condition for allowance. An early Notice of Allowance is therefore earnestly solicited. Applicants invite the Examiner to contact the undersigned representative at (619) 685-1713 to clarify any unresolved issues raised by this response.

Respectfully submitted,

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